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| EXAMINER | |
|---|---|
| BELL, PAUL A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2675 | 9 |

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/845,559 | KYOMOTO, TADAO | |
| | Examiner | Art Unit | |
| | PAUL A BELL | 2675 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6 and 8-1012* is/are rejected.

7)☒ Claim(s) *2,7,11 and 14-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-6, 8-10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhang et al. (5,461,397).

With regard to claim 1 Zhang et al. teaches an illumination control device (figure 1a, item 32 and 101) for illuminating an light modulation information display device (figure 1a, item 34 LCD) with light, comprising: at least one illumination device for irradiating light which is generated through discharging (abstract "flat gas discharge back end unit containing multiple gas discharge tunnels"); and a driving waveform generation section for controlling the light which is irradiated from the at least one illumination device to the light modulation information display device (figure 1a, item 101 and figure 2), wherein: the light modulation information display device is operable so as to have a first period and a second period during which an image is displayed; during the first period, the driving waveform generation section applies a first voltage to the at least one illumination device, the first voltage causing the at least one illumination device to be turned entirely-ON and during the second period, the driving waveform generation section applies a second voltage to at least a portion of the at least one

illumination device, ( See figure 2, SUB-SECTION I illustrates a "second voltage" or "ignition voltage" during a "second period" which is the "pulse" part of the signal used to turn-on the Red, Green or Blue light, See figure 3A which illustrates a cathode item 322 and an anode item 321 of which the second voltage is applied. Now with regard to the "first voltage" and "first period" See Column 5, lines 2-10 "another aspect of the present inventive SFBL structure is the provision of **means for priming** the channels or tunnels to be discharged with charged particles. This priming is to be performed before or immediately **before the ignition voltage is applied**", in this section "priming" reads on "first voltage" and "immediately before the ignition voltage" reads on first period ) wherein the second voltage is different from the first voltage (Since the amount of first voltage (or priming) determines how much second voltage (or ignition voltage) is needed, the second voltage is different than the first voltage, also See column 5, lines 6-10).

With regard to claim 3 Zhang et al. teaches an illumination control device according to claim 1, wherein the second voltage causes the at least one illumination device to have a minimal discharging (column 5, lines 1-30).

With regard to claim 4 Zhang et al. teaches an illumination control device according to claim 1, wherein the second voltage causes the at least one illumination device to retain a partial discharging (column 5, lines 1-30).

With regard to claim 5 Zhang et al. teaches an illumination control device according to claim 1, wherein: each of the at least one illumination device comprises two main discharging electrodes and a partial discharging electrode provided in a vicinity of one of the two main

discharging electrodes; the driving waveform generation section applies the first voltage between the two main discharging electrodes during the first period; and the driving waveform generation section applies the second voltage between the partial discharging electrode and the one main discharging electrode in the vicinity of the partial discharging electrode during the second period (figures 3a and 4a column 9, lines 1-35, column 10, lines 30-50).

With regard to claim 6 Zhang et al. teaches an illumination control device according to claim 5, wherein: the at least one illumination device comprises a plurality of illumination devices; and for each of the plurality of illumination devices, the driving waveform generation section individually selects a voltage to be applied and electrodes between which a discharge is to occur, depending on the first period and the second period of the illumination device (figures 1a and 2).

With regard to claim 8 Zhang et al. teaches a light modulation information display device comprising: the illumination control device according to claim 1; and a light modulation information display section, wherein the light modulation information display section controls light provided from the illumination control device to display information (abstract).

With regard to claim 9 Zhang et al. teaches a light modulation information display device according to claim 8, wherein the controlling of the light comprises at least one of transmission, absorption, interception, reflection of the light (figure 1a, LCD).

With regard to claim 10 Zhang et al. teaches a light modulation information display device (figure 1a, LCD) comprising: a light modulation information display section (figure 1a,

LCD); and an illumination control device (figure 1a, item 32) comprising at least one illumination device having two main discharging electrodes ( figure 3a, item 322 "cathode" and item 321 "anode" and since these are where the ignition voltage is applied it reads on "main discharging electrodes") and a partial discharging electrode (figure 3a, item 325, "pilot discharge electrode", and since this electrode is used in "the priming means" it reads on "a partial discharging electrode" ), wherein light provided from the at least one illumination device is irradiated to the light modulation information display section (figure 1a, "BLACKLIGHT and LCD), wherein: the at least one illumination device has a length greater than a corresponding dimension of the light modulation information display section (figures 1a, 1b this is an inherent feature because the blacklight has end connection sections that do not emit light so therefore in order to work and provide light to every pixel it must be bigger than LCD) ; the at least one illumination device includes a first region corresponding to the light modulation information display section (figure 7, items 565 and 555) and a second region not corresponding to the light modulation information display section; and one of the two main discharging electrodes is disposed in the first region (figure 3a, items 321), and the other of the two main discharging electrodes and the partial discharging electrode are disposed in the second region (figure 3a, items 325, 322).

With regard to claim 12 Zhang et al. teaches a light modulation information display device according to claim 10, wherein the at least one illumination device retains a minimal discharging between the other of the two main discharging electrodes disposed in the second

region and the partial discharging electrode (column 5, lines 1-30, column 9, lines 1-35, figures 4a and 4b).

With regard to claim 13 Zhang et al. teaches a light modulation information display device according to claim 10, wherein the at least one illumination device retains a partial discharging between the other of the two main discharging electrodes disposed in the second region and the partial discharging electrode (column 5, lines 1-30, column 9, lines 1-35, figures 4a and 4b).

***Allowable Subject Matter***

3. Claims 2, 7, 11, and 14-18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

4. Applicant's arguments filed 28 July 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "Consequently, the at least one illumination device is not completely turned off" ) are not recited in the rejected claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regards to claim 1, the applicant argues on page 4 that, "Zhang et al. do not disclose or suggest such a structural configuration." The examiner disagrees and references the more detailed rejection of claim 1 above where the structure and function of the claim are matched to the reference. Also it is not clear when essentially the whole claim is repeated which specific structure is in question.

With regards to claim 10, the applicant argues on pages 4 and 5 that, "Zhang et al. do not disclose or suggest such a structural configuration. Although the length of the discharge paths may vary in Zhang et al. do not teach the pilot discharge electrodes 325 being partially discharging" The examiner disagrees and references the more detailed rejection of claim 10 above where the structure and function of the claim are matched to the reference.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: (703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Paul Bell
Art unit 2675
6 October 2003

STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600